

Listing of the Claims

1. (Currently Amended) A detector arrangement comprising at least one detector module ~~(Dx)~~ having a plurality of individual detector elements ~~(36, 37)~~ as well as an electrical unit ~~(331)~~ having an electro-optical transducer ~~(331a)~~ for processing the signals of the detector elements ~~(36, 37)~~ and for generating optical detector module output signals.
2. (Currently Amended) A detector arrangement as claimed in claim 1, in which the electrical unit ~~(331)~~ comprises an analog-to-digital converter ~~(AD)~~ and a parallel-to-serial converter ~~(P/S)~~ for generating a serial digital detector module output signal.
3. (Currently Amended) A detector arrangement as claimed in claim 1, in which the electrical unit ~~(331)~~ comprises an opto-electrical transducer ~~(331b)~~ with which detector module input signals can be supplied to the detector elements ~~(36, 37)~~.
4. (Currently Amended) A detector arrangement as claimed in claim 1 ~~or 3~~, in which the electro-optical respectively the opto-electrical transducer ~~(331a; 331b)~~ comprises a photodiode or an LED and/or a laser diode.
5. (Currently Amended) A detector arrangement as claimed in claim 1, having at least one optical fiber coupler ~~(332)~~ with which the at least one detector module ~~(Dx)~~ can be optically coupled to an optical fiber cable ~~(341)~~.
6. (Currently Amended) A detector arrangement as claimed in claim 1, in which the at least one detector module ~~(Dx)~~ comprises a detector chip, especially a CMOS chip ~~(36, 37)~~, on which the detector elements are formed.
7. (Currently Amended) A detector arrangement as claimed in claim 6, in which the electrical unit ~~(331)~~ is integrated in the at least one detector chip ~~(36, 37)~~.

8. (Currently Amended) A detector arrangement as claimed in claim 1, in which the at least one detector module (~~Dx~~) comprises a module carrier (~~30~~) having an inner space (~~33~~) for the electrical unit (~~331~~) and having a cable duct (~~34~~) for at least one optical fiber cable (~~341~~).

9. (Currently Amended) A detector arrangement as claimed in claim 8, in which the at least one detector module (~~Dx~~) is slidably guided between two guide rails (~~31, 32~~), of which at least one rail is provided for connection of a terminal of a power supply to the detector module (~~Dx~~).

10. (Currently Amended) A detector arrangement as claimed in claim 1, in which the detector module (~~Dx~~) comprises a module connector (~~333~~) for optical connection of the detector module (~~Dx~~) to a further detector module (~~Dx~~) arranged adjacent thereto or to an optical fiber interface that is provided for connection of the detector arrangement (~~10~~) to a processing unit or central processing unit (~~Z~~).

11. (Currently Amended) A detector arrangement as claimed in claim 10, in which the optical fiber infrastructure comprises a backplane (~~50~~) in the form of a printed circuit board having a plurality of embedded optical fiber cables for optical connection of the detector arrangement (~~10~~) to the processing unit or central processing unit (~~Z~~).

12. (Currently Amended) A computer tomograph having a gantry (~~1~~) with a detector arrangement (~~10~~) as claimed in any one of claims 1 to 11.

13. (Currently Amended) A computer tomograph as claimed in claim 12, in which the detector arrangement (~~10~~) as well as a processing unit in the form of a central processing unit or buffer memory (~~Z~~) for wireless transmission of the detector module output signals to a stationary evaluating unit are arranged on a rotatable part of the gantry (~~1~~), the detector arrangement (~~10~~) being optically connected to the central processing unit or the buffer memory (~~Z~~) by way of an optical fiber infrastructure.